

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

PURPOSE

The purpose of this project is to reduce the potential risk in both the public and private sectors posed by unwanted radioactive sources for which custodians have no disposition options, and to address DOE's obligation to accept and dispose of these materials under PL99-240 (The Low-Level Radioactive Waste Policy Amendments Act of 1985).

Predecessor Projects: Since the creation of EM there have been two predecessor projects within EM and one in DP which have dealt with separate portions of the problem of excess radioactive sources in the private sector and in government operations.

- 1) The Greater Than Class-C (GTCC) Waste portion of the National Low-Level Radioactive Waste Program, DOE HQ EM-30.
- 2) The Off-Site Waste Program, DOE HQ EM-30
- 3) The Pu-239/Be Neutron Source Acceptance Program (managed by DP-27, through DOE-AL and LANL until FY-1999 when it was transferred to EM-36/AL/WMD).
- 4) In FY-1996 EM-30, by memo, consolidated responsibility for GTCC radioactive sealed sources and excess DOE-owned sealed sources (which would be considered Special Case Waste) under EM-36. This new project builds on these previous efforts to address that portion of excess radioactive sealed sources under DOE purview which would be classified as GTCC when declared waste. The project, titled the Off-site Source Recovery (OSR) Project has been re-focused from previous efforts to aggressively recover unwanted sealed sources from State and NRC licensees. Recovered sources will be placed in compliant storage, such that they may be recycled and reused if a need is identified, or directly disposed when compliant disposal facilities become available. The project serves the Paths to Closure as follows:

a) This multi-year project will reduce risks to the public health and safety and the environment which have been identified by NRC and key stakeholders by establishing a fully operational capability for the acceptance, consolidation, storage, and disposal of unwanted radioactive sources resident off-site within the public and private sectors. Acceptance of sources will be prioritized on the basis of highest risk first, in cooperation with the NRC, State radioactive material regulatory authorities, and other agencies as appropriate.

b) The project will establish partial compliance with PL 99-240 and will fulfill DOE's commitment to Congress in the February 1987 Report to Congress, titled Recommendations for Management of Greater-Than-Class-C Low-Level Radioactive Waste (DOE/NE-0077). The project will accomplish this by accepting GTCC waste in the form of unwanted sealed sources. In addition, the project will accept radioactive material as requested by the NRC under the Atomic Energy Act of 1954 as amended. Establishment of this project will also fulfill overdue commitments to the NRC and public and private stakeholders by the Office of Environmental Management.

c) By accepting and consolidating unwanted, long lived, radioactive sources at Los Alamos National Laboratory (LANL) into shielded multi-purpose containers, worker exposures are significantly reduced and disposal volumes are minimized.

d) The Project will become fully operational in FY-2000 with the objective to eliminate all significant off-site risk to public health and safety posed by unwanted radioactive sources by 2006.

e) By the implementation and maturation of a cost recovery program requiring generators of GTCC wastes to pay reasonable cost for the acceptance,

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 1 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

storage and disposal of sources, direct costs to DOE can be reduced and minimized in the out-years of the project.

f) With both DOE and private sector funding supporting the operational activities and with the technology fully developed and integrated at LANL, cost effective planning and development of limited (<500 cubic meters) of compliant disposal can commence under this project.

SCOPE

The Scope of the OSR Project has been planned to address approximately 17,000 individual radioactive sources over an 11 year period beginning full operations in FY-2000. The emphasis on source type will change over the course of the overall project. It will begin by addressing radioactive sources in the public and private sectors which pose the greatest potential health, safety, and environmental risk, (mainly neutron generating sources containing TRU materials). Over time as the most urgent risks are eliminated and routine acceptance and consolidation and storage are fully established, the project will focus on the development and implementation of a limited volume (<500 cubic meters) disposal facility. Based on this general evolution, the specifics of the project scope are as follows:

- 1) Capital equipment and personnel resources will be acquired at LANL to increase the rate of source acceptance and consolidation from the 1998 and previous levels of 100 sources plus emergencies to 300 sources/year in FY-2000 (current NEPA Compliance Limit) up to a peak of approximately 2000 sources/per year in FY-2003.
- 2) Compliant storage capability will be implemented at TA-54 Area-G for a overall program capacity of 1000 consolidated drums.
- 3) Technical and logistical support will be acquired to continue coordination of off-site source recoveries and consolidation of material outside of LANL.
- 4) Compliant capability to consolidate actinide bearing sources at TA-50 will be developed and implemented.
- 5) Contract support will be required to design, develop, test and implement use of multi-function sealed source containers.
- 6) An interactive database will be developed and implemented to identify and track radioactive sources accepted under the project from initial identification through final disposal.
- 7) A recycle capability will be implemented to promote recycle and reuse of sealed sources or access to contained isotopic materials accepted under the project.
- 8) A cost recovery program will be established to recover operational costs for acceptance, consolidation, characterization, and certification and disposal of radioactive sources accepted from generators with means to pay per PL99-240. This program will be administered in a manner which balances recovery of cost with reduction of risk. A procedure for radioactive source acceptance will be established in cooperation with the NRC based on a risk minimization priority schedule consistent with the applicable MOU between NRC and DOE.
- 9) The NEPA process will be initiated to prepare for disposal of GTCC-qualified sealed sources accepted, consolidated, characterized, certified, and stored under the project.
- 10) Coordination with LANL SWEIS will continue to acquire and where necessary modify analysis for NEPA compliance to increase operational capacity to 2000 sources per year.
- 11) As the greater portion of the actinide sources are recovered and placed in compliant storage, planning will commence to provide for a limited volume (<500 cubic meters) moderate depth disposal capability (Greater Confinement Type) for both actinide and non-actinide sources which have no recycle potential.

TECHNICAL APPROACH

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 2 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

The radioactive sources of greatest concern to this project are actinide-bearing sources, of which there are approximately 17,000 planned for recovery over the length of operations. Of these, approximately 5,000 are neutron emitters which utilize the alpha-n reaction as a trigger. These high energy sources create the greatest risk, and it is this group (approx. 30% of the total) which will be the focus of the technical approach at LANL throughout the program. The approach to reduce risk is to first implement an infrastructure that will efficiently and effectively provide for the safe recovery of unwanted radioactive sources from their licensee custodians. Second, consolidation of accepted sources into shielded multi-function containers will minimize the volume. The containers will meet the Waste Acceptance Criteria (WAC) for the Waste Isolation Pilot Plant (WIPP) and the contents will have undergone a WIPP equivalent characterization, physical assay, and QA certification process resulting in a rigorously packaged material that can be recovered and reused if a need is established or will serve as a well characterized waste form that can support performance objectives and performance assessment analysis for disposal development. As a result, when disposal is made available, these packages (a total of approximately 700 drums of actinide bearing sealed sources are anticipated throughout the course of this program) will be ready for immediate shipment to the disposal site. Similarly, non-actinide sources will be recycled, disposed of, or held for disposal at a later time. Non-actinides are not now planned for receipt at LANL, although LANL technical staff and technical support contractors working under LANL will coordinate receipt, disposition, and management of non-actinide sources with DOE and other operations sites across the DOE complex. While the non-actinide sources are anticipated to comprise <20% of the total number of sources to be addressed under this program they are of a far lower priority from a standpoint of risk potential (approximately 10% of the overall risk posed by unwanted sources). The key technical steps in the approach adopted by the OSR project follow:

- 1) LANL will identify sources using a risk-based priority system and will coordinate the orderly recovery and acceptance of the sources on behalf of DOE.
- 2) LANL will work with private industry wherever possible to provide for the receipt and consolidation of recovered sources into multi-function containers for shipment to LANL in an effort to achieve the highest degree of cost-effectiveness and to minimize personnel exposures in the handling and transportation process.
- 3) The WIPP characterization and certification process will be implemented at LANL when consolidated shipments are received prior to storage.
- 4) A total storage capacity will be provided for up to 1000 consolidated drums at TA-54 Area G.
- 5) A rigorous process of NEPA analysis will be initiated leading to a limited volume (<500 cubic meters) disposal facility with performance objectives and assessments based on the WIPP WAC model.
- 6) Development of NRC licensed disposal will be pursued in accordance with PL-99-240.
- 7) The lower priority, but still numerous form of non-actinide radioactive sources are those containing shorter lived isotopes such as Cesium-137 or Strontium-90. Initially, LANL technical support staff will coordinate disposition of such devices through recycle in the private sector or with storage at a DOE site as appropriate. However, non-actinide-bearing sources will be evaluated for NEPA and for performance objectives analysis for inclusion in small-scale disposal capability.

Materials accepted for management under this program are accounted for in the Analysis and Visualization System (AVS) as waste streams and are defined as follows:

1. MLLW - Disposal, from Licensed Activities: Mixed Low Level Waste accepted, treated and disposed, resulting from off-site source recovery actions requested by NRC where the source by definition is Class-C or below LLW and contains a hazardous component.
2. LLW - Accepted for Storage, from Licensed Activities (Greater than Class C): Sealed sources and perhaps other excess-unwanted material containing non-TRU isotopes which are accepted for management under OSR from the licensed community per PL 99-240 and DOE NE-0077. An

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 3 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

example is a Sr-90 RTG once owned and licensed by a commercial firm or government agency.

3. LLW - Disposal, from Licensed Activity (Greater Than Class C): Actions involving disposal of sealed sources and perhaps other excess-unwanted material containing non-TRU isotopes which have been accepted for management under OSR from the licensed community per PL 99-240 and DOE NE-0077. An example is a Sr-90 RTG once owned and licensed by a commercial firm or government agency.

4. LLW - Disposal from Licensed Activities: Low Level Waste accepted and disposed resulting from off-site recovery actions requested by NRC where the source, by definition is Class C or below LLW.

5. TRU - Accepted for Storage, from Licensed Activities (Greater than Class C): Sealed sources and perhaps other excess-unwanted material containing >100 nCi's/g transuranic isotopes which are accepted for management under OSR from the licensed community per PL 99-240 and DOE NE-0077. An example would be an Am-241/Be neutron source once owned by a defunct well logging firm.

6. TRU - Disposal, from Licensed Activities (Greater than Class C): Actions involving disposal of sealed sources and perhaps other excess-unwanted material containing >100 nCi's/g transuranic isotopes which have been accepted for management under OSR from the licensed community per PL 99-240 and DOE NE-0077. An example would be an Am-241/Be neutron source once owned by a defunct well logging firm.

Project Status in FY 2006:

The Off-Site Source Recovery (OSR) Project as planned will be completed by the year 2010. By the end of 2006 the following milestones will have been achieved:

- 1) It is anticipated that all radioactive sources posing significant risk to public health and safety and the environment will be recovered and safely stored.
- 2) Work toward the development of limited volume (<500 cubic meters) of compliant disposal capacity will have been achieved to permit shipments of stored materials to the selected disposal facility to begin by the year 2006.
3. A Cost Recovery Program will have been implemented and have matured by 2003 which addresses the PL99-240 requirement that DOE recover "reasonable cost" from generators of GTCC qualified materials. By 2006, if disposal is available, the Cost Recovery Program will have achieved close to a self sustaining revenue stream to reach 2010.
4. Los Alamos National Laboratory (LANL) will have increased its operational capacity to manage up to approximately 2000 sources per year.
5. By 2006, DOE and NRC will have negotiated and implemented rule-making which will provide end-of-life financing for all sealed source devices purchased and licensed within the U.S. such that phase-out of the project as a DOE funded and managed project can begin.

Post-2006 Project Scope:

The OSR Project has been planned to reach its end state in the year 2010. Between 2006 and 2010, the following project activities will continue:

1. The OSR Project will accept and recycle and/or dispose of the remaining 20% of unwanted sealed sources held under license outside of the DOE complex.
2. A database will be completed which identifies the storage location and/or disposal locations and volumes for those sources which have been

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 4 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

accepted over the course of the program.

3. Between 2006 and 2010, the OSR Project will work with the private sector to develop commercial management capability for the recycle and/or disposal of GTCC-qualified licensed sealed sources leading to full privatization and discontinuation of DOE efforts.

Project End State

At the close of the OSR Project in 2010, the following conditions will prevail:

1. All radioactive sealed source recovery and recycle operations will have been completed sufficient to reduce all significant risk to the public and the environment.
2. GTCC disposal capability for sealed sources material will have been made available in sufficient volume to address disposal needs for the foreseeable future provided the consolidation method is followed to continue volume minimization.
3. Future capability will have been transferred to the private sector. Management of such capabilities will now fall under the jurisdiction of the NRC and Agreement States with agreement of DOE.

Cost Baseline Comments:

The cost estimates provided are based on a reasonable transition to the full OSR Project in FY-2000 from the start-up year of FY-1999. If the FY-2000 targets are not realized, a contingency amount will need to be added and applied over the 2001 and 2002 period to achieve identified 2006 goals and milestones.

Safety & Health Hazards:

Public Safety & Health: Currently, there is no commercial or government (DOE) disposal option for radioactive sources which exceed the Low Level Waste (LLW) Class-C limits established in 10CFR61.55. As a result, there exist several thousand unwanted radioactive sealed sources, which are held in storage throughout the U.S. by private and government custodians. These sources are being held until some disposal option becomes available. Although not currently quantified, these unwanted sources generate personnel exposures annually to workers and control personnel, as well as creating the potential for accidents and incidents to occur. In addition abandonments and bankruptcies occur which jeopardize responsible radiological control. This situation poses a significant risk to the public health and safety. DOE is responsible for these radioactive materials under PL 99-240 and in a Report to Congress in February 1987 (DOE/NE-0077), DOE promised to establish a program to begin accepting these at-risk sources within two years. In spite of numerous letters from stakeholders and the NRC in subsequent years, DOE has failed to establish the promised program and time and neglect have contributed to an increase in risk to the public. DOE has implemented a case-by-case acceptance program for sources designated at risk by NRC, but the acceptance process is time consuming and has not been proactive in addressing the risk. The project described in this PBS is intended to provide the capability promised to Congress twelve years ago. The initial objective of the OSR Project is to reduce and eventually eliminate risk to public health and safety from unwanted radioactive sources by providing acceptance and storage prior to final disposition of these unwanted sources. The second priority will address the general health and safety issues associated with the management and disposition of recovered sources. Over time, with the primary risks addressed, the OSR Project will work to development compliant disposal.

Consolidation & Transportation Safety & Health: Working with the private sector as described previously, the OSR Project will implement operational procedures which will minimize personnel exposures during recovery and consolidation of radioactive sources prior to transport to LANL or other

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 5 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

storage facility. This consolidation method will also reduce the per source dose received by LANL personnel during the receipt and storage prior to disposal.

Site Personnel Safety & Health: The largest hazard associated with source recoveries comes from the large number of unwanted neutron sources awaiting acceptance. Neutron sources will be consolidated into highly shielded multi-function containers prior to storage, then placed in safe compliant storage areas. Consolidation minimizes the total number of drums required in storage (<600 drums containing neutron sources are anticipated during the life of the program). Typically a contact dose rate of <50mrem/hr is expected from neutron source drums. At the storage site, these drums will be placed in a geometry such that added portable shielding can be used to further reduce the potential of worker exposures.

Remote handling and robotic technologies will be utilized for consolidation and assay processes conducted at LANL in order to reduce personnel exposures throughout the life of the program.

Specific health and safety documentation currently at LANL which address operations include:

Need to develop new list.

Safety & Health Work Performance:

Work performance is controlled through the authorization basis for existing and new operational activities at LANL's BUS-4, TA-54 and TA-50 facilities.

PBS Comments:

Implementation of a fully capable RSRP will be the fulfillment of promises made to Congress in 1987, to stakeholders over the past decade, and to the NRC since the creation of EM. It is anticipated that once the project is fully operational, the direct result will be a significant reduction in Health & Safety risks posed by unwanted sealed source devices and materials throughout the public and private sector and within the DOE complex. Most importantly, establishment of this program will address DOE's responsibility under PL99-240 which made the DOE responsible for those sources that exceed Class-C limits under 10CFR61.55. In addition, the positive interaction between the licensee, state and federal regulatory agencies and the DOE, should result in a significant improvement in the public's perception of DOE's commitment to solving the problems of unwanted nuclear material in the environment.

1. Establishment of the RSRP has been continually requested by the NRC since 1989.
2. Establishment of the RSRP has been requested of DOE through a unanimous resolution of the Conference on Radiation Control Program Directors (CRCPD) in 1995 and the CRCPD has continued to press for the implementation of the program.
3. Establishment of the RSRP has received favorable reaction from some of the DOE's harshest critics. Greg Mello of the Santa Fe based Los Alamos Study Group has stated, "The lab's [LANL] expertise in nuclear materials can and should be applied to corralling the dangers out there. "[referring to sealed sources]. He added that the devices, which are widely used in industry are safer at the lab than "scattered all over the country in places where they may be stored improperly or are vulnerable to accidents or damage."

Baseline Validation Narrative:

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Page 6 of 13

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Project Description Narratives

Validation of the Off-Site Source Recovery (OSR) Project is in process through peer review by the Conference of Radiation Control Program Directors (CRCPD).

General PBS Information

Project Validated?

Date Validated:

Has Headquarters reviewed and approved project?

No

Date Project was Added:

Baseline Submission Date: 7/1/1999

FEDPLAN Project? Yes

Drivers:	CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
	N	N	N	Y	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Joel Grimm

DOE Project Manager Phone Number: 505-845-5463

DOE Project Manager Fax Number: 505-845-6286

DOE Project Manager e-mail address: jgrimm@doeal.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	48,671	0	48,671	815	815			1,611	6,000	6,000	6,245	7,000	7,000	7,000	7,000
PBS Baseline (constant 1999 dollars)	44,659	0	44,659	815	815			1,611	5,842	5,722	5,833	6,404	6,272	6,143	6,017

Dataset Name: **FY 1999 Planning Data**

Page 7 of 13

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: EM CDB

Report Number: GEN-01b

Operations/Field Office: Albuquerque

Print Date: 3/9/2000

Site Summary Level: Los Alamos National Laboratory

HQ ID: 1163

Project AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006	
PBS EM Baseline (current year dollars)	48,671	0	48,671	815	815			1,611	6,000	6,000	6,245	7,000	7,000	7,000	7,000	
PBS EM Baseline (constant 1999 dollars)	44,659	0	44,659	815	815			1,611	5,842	5,722	5,833	6,404	6,272	6,143	6,017	
	2007	2008	2009	2010	2011- 2015	2016- 2020	2021- 2025	2026- 2030	2031- 2035	2036- 2040	2041- 2045	2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
0.00%		0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%
2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Dataset Name: FY 1999 Planning Data

Page 8 of 13

Date of Dataset: 9/20/1999

Project Baseline Summary Report

Data Source: EM CDB

Operations/Field Office: Albuquerque

Site Summary Level: Los Alamos National Laboratory

Project AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def

Report Number: GEN-01b

Print Date: 3/9/2000

HQ ID: 1163

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2010

Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	Actual 1997 Cost:	815	Actual 1998 Cost:	
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	-815	Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):	-22	
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	-837			

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):	40,495	Reorganized in FY99 to eliminate chemical processing. See Budget Narrative.
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	-41,332	
Additional Amount to Reconcile (+):	85,176	
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	43,844	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Planning for disposal of non-TRU GTCC sealed sources			9/30/1999							Y	

Dataset Name: FY 1999 Planning Data

Page 9 of 13

Date of Dataset: 9/20/1999

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Initiation of Cost Recovery Program			9/30/1999								
Development of multifunction container			9/30/1999								
Completion of pilot project			9/30/1999								
Source consolidation			9/30/2000								
Full-scale Recovery Operations			12/31/2000								
Waste Characterization and Certification			9/30/2001								
Completion of back logged source recoveries.			9/30/2005								
Shipment to Disposal Site			12/31/2006								
Self-supporting Program			9/30/2006							Y	
Privatization of Program			9/30/2010								

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Planning for disposal of non-TRU GTCC sealed sources											Initiate planning for disposal of non-transuranic Greater-than-Class C sealed source materials resulting from licensed activity.
Initiation of Cost Recovery Program				Y							Initiate a DOE cost recovery program that complies with Public Law 99-240 for the acceptance for storage, treatment and ultimate disposition of GTCC sealed sources from the private sector to reduce costs to the DOE.
Development of multifunction container											Initiate development of multifunction sealed source consolidation container that can be used for consolidation,

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Milestones - Part II

Milestone/Activity	Field Milestone Code	Critical Decision	Critical Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Completion of pilot project											transport, storage and disposal of sealed sources. Complete all phases of NRC requested source recovery pilot project.
Source consolidation											Initiate operations at Los Alamos National Laboratory to consolidate recovered sources into multifunction containers.
Full-scale Recovery Operations											Achieve full-scale source recovery operations.
Waste Characterization and Certification											Initiate waste characterization and certification operations for consolidated actinide-bearing sealed sources held in storage at LANL.
Completion of back logged source recoveries.											Complete recovery, consolidation and certification of all backlogged, unwanted sealed sources held by licensees in the U.S.
Shipment to Disposal Site											Initiate shipments of certified sealed source waste containers to designated disposal site.
Self-supporting Program											Achieve self-supporting budgetary program status.
Privatization of Program					Y	Y					Achieve privatized program status for future acceptance and disposal of sealed sources meeting the definition of GTCC waste.

Performance Measure Metrics

Dataset Name: **FY 1999 Planning Data**

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: **EM CDB**

Report Number: **GEN-01b**

Operations/Field Office: **Albuquerque**

Print Date: **3/9/2000**

Site Summary Level: **Los Alamos National Laboratory**

HQ ID: **1163**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 2001	Planned 2002	Planned 2003	Planned 2004
TRU														
Storage	M3								4.00	15.00	32.00	48.00	66.00	83.00
TRU														
Disp. At WIPP	M3	0.00	0.00	0.00	0.00		0.00							
LLW														
Storage	M3									3.00	9.00	12.00	13.00	14.00
LLW														
On-Site Disp.	M3	0.00	0.00	0.00	0.00		0.00							
LLW														
TBD Disp.	M3	15.00	0.00	15.00						0.00	0.00	0.00	0.00	0.00
Category/Subcategory	Units	Planned 2004	Planned 2005	Planned 2006	Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 - 2015	Planned 2016 - 2020	Planned 2021 - 2025	Planned 2026 - 2030	Planned 2031 - 2035	
TRU														
Storage	M3	83.00	100.00	65.00	21.00	0.00	0.00	0.00						
TRU														
Disp. At WIPP	M3													
LLW														
Storage	M3	14.00	15.00	0.00										
LLW														
On-Site Disp.	M3													
LLW														
TBD Disp.	M3	0.00	0.00	15.00										

Dataset Name: **FY 1999 Planning Data**

Page 12 of 13

Date of Dataset: **9/20/1999**

Project Baseline Summary Report

Data Source: **EM CDB**

Operations/Field Office: **Albuquerque**

Site Summary Level: **Los Alamos National Laboratory**

Project **AL-RSRP/LANL / Off-site Source Recovery Program - Non-Def**

Report Number: **GEN-01b**

Print Date: **3/9/2000**

HQ ID: **1163**

Category/Subcategory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2065	Planned 2066 - 2070	Exceptions	Lifecycle Total
TRU										
Storage	M3									
TRU										
Disp. At WIPP	M3									0.00
LLW										
Storage	M3									
LLW										
On-Site Disp.	M3									0.00
LLW										
TBD Disp.	M3									15.00